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MECHANICAL ENGINEERING

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OF MECHANICAL ENGINEERS

JUNE 1920

A. S. M. E. Affairs

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Coming Section Meetings

Atlanta Section.

June 29. Plate Dinner. Election of Officers.

Chicago Section.

June 21. At the Western Society of Engineers' Club. Subject: Refrigeration.

Cleveland Section.

June 8. All-day session. Inspection of industrial plants. Dinner at the University Club. Speakers: Col. Edward A. Deeds of Dayton, and Mr. Cattell, City Statistician of Philadelphia.

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SOCIETY AFFAIRS

Secretary's Letter — A. S. M. E. Council Meeting — Professional Sections News — Section Meetings — Personals — Necrology — Employment Bulletin — Candidates for Membership

The Secretary's Letter

THE success or failure of the Washington Conference of the Engineering Societies set for June 3 and 4 will be more or less determined by the ideals set for the objects of the new organization.

We are all jealous for the standing and influence of our profession and yet how many are doing the one essential thing for its enhancement, namely, making the object of first importance the contribution which we as technically trained men can make to the community?

The Society is the composite of its members. By each individual member serving for the common good, within and without, do we attain that position of esteem by the public which we cherish.

HEROES

Everywhere one sees memorials being erected for the soldiers and sailors who made the supreme sacrifice in the War. Groups of influential citizens exhibit even greater rivalry with regard to the selection of the site for a memorial building than they do with regard to the memorial feature,—at least this is so in my town.

In the Council Notes of the last meeting will be noted the authorization to our Committee on War Participation and Members' Memorial to make a final publication of the list of our members who died in the war.

Has it ever occurred to you that however genuine is the sacrifice to die for a cause, one can render a greater service by living for others?

Without in any way detracting from the service of honor and obligation we hold toward those who have sacrificed their lives that we might live "in the land of the free," I want to point out that we who live may pay back the debt we owe, and more, by living a life of service—that it often takes more heroism to do that, more courage and even a more noble sacrifice.

CALVIN W. RICE.
Secretary.

A. S. M. E. Council Meeting

Biography of Dr. Brashear to Be Secured—War Records of Members to Be Published—Syracuse Section Established—Committee Appointments, etc.

A regular meeting of the Council was held at the Congress Hotel, Chicago, on April 19, 1920, the Council being guests of the Western Society of Engineers with the Boards of the other three National Societies.

The death of Dr. John Brashear was made a special order of business, and the President announced that he had appointed Mortimer E. Cooley, Ambrose Swasey, John R. Allen, Sumner B. Ely and Calvin W. Rice as Honorary Vice-Presidents at the funeral of our beloved Past-President and Honorary Member. A committee composed of Ira N. Hollis, Chairman, M. E. Cooley, D. S. Kimball and Ambrose Swasey was appointed to prepare resolutions, and the Publication Committee was authorized to take immediate steps to secure the biography of Dr. Brashear, the manuscript for which was about one-third completed by Dr. Brashear before his death. The Meetings and Programs Committee also offered to arrange a memorial service at the Annual Meeting this year.

War Participation and Members' Memorial. President Miller, Chairman, reported that the Committee had sent out questionnaires to about 1400 members known to have been in military or naval service during the war, and had inserted three notices in *Mechanical Engineering*; to these 1100 replies had been received. The Committee was authorized in its discretion to pub-

lish the war records of members based upon the replies received.

Finance Committee. In accordance with the new amendment to By-Law B-36, the Council voted that the President, who is now authorized to make payments, etc., should be bonded in an equal amount to that in which the Treasurer of the Society is bonded.

Local Sections. The petition of members in Syracuse, N. Y., was granted for a local section there, to be affiliated with the Technology Club of Syracuse. The petition of members for a local section in Utica, N. Y., was also granted, to be affiliated with the Mohawk Valley Engineers' Club.

Relations with Colleges. The petition for a Student Branch at the University of North Carolina was approved.

Professional Sections. A petition for the formation of a Railroad Section was approved. This petition was signed by

W. A. Austin	Selby Haar	J. C. McCune
G. M. Basford	Geo. Hillyer	G. R. Tuska
Samuel Cooke	H. Kaplan	R. V. Wright
L. J. Gersoni	E. B. Katte	

with the collaboration of sixty-five members of the Society.

Research Committee. On the recommendation of Prof. A. M. Greene, Jr., Chairman, the following Sub-Committees of the Research Committee were authorized:

Committee on Cutting Action of Cutting Tools
Committee on Pipe Joints
Committee on the State of the Art in Analysis, Design and Construction of Riveted Joints
Committee on the State of the Art in Torsional Vibration and Stresses Relating thereto.

Boiler Code. Interpretations of Cases Nos. 279, 284, 285, 286, 289 and 290 were approved, and the action of the Executive Committee of the Council in approving Case No. 272 was confirmed.

Code of Ethics. The report of the Special Committee on Code of Ethics was received and ordered printed and referred to the membership of the Society as a whole at the Spring Meeting in St. Louis, and was also referred to the Engineering Council with the recommendation that the Code be considered as a basis for the Joint Code for all engineers.

Steel Roller Chains. The appointment of Alfred F. Masury on this Committee, in place of F. V. Hetzel, was approved.

Rehabilitation of the Blind. At the request of the Chairman, Prof. Charles H. Benjamin, the Committee on the Rehabilitation of the Blind was dissolved with the thanks of this Council, its work in connection with the Red Cross Institute having been completed.

Engineering Council. The admission of the American Railway Engineering Association to membership in Engineering Council was approved.

Patents. A vote of thanks was extended to Mr. E. J. Prindle, member of the Society and Chairman of the Engineering Council Committee on Patents, for his work in connection with the "Nolan" Bill, providing mainly for increased compensation in the U. S. Patent Office.

American Engineering Standards Committee. The addition of the Society of Automotive Engineers, National Electric Light Association and the Electric Manufacturers Council to the membership of the Committee was approved.

Standardization and Unification of Screw Threads. The Council authorized the appointment of Luther D. Burlingame, Will R. Porter, Allen H. Moore and George D. Case, as special representatives of this Society on the Sectional Committee on the Standardization and Unification of Screw Threads, to serve until the expiration of this Council.

Joint Conference Committee. The President and Secretary were empowered to appoint delegates to the "Organizing Con-

ference" called by the Joint Conference Committee of the A. S. C. E., A. I. M. E., A. S. M. E. and the A. I. E. E., to be held in Washington, D. C., June 3 and 4, for the purpose of considering the recommendations of this Committee regarding engineering organization.

Appointments by the President. Arthur R. Baylis was appointed as a member of the Committee on Screw Threads and Threaded Parts.

International Engineering Congress. The Council endorsed the suggestion of the Swedish Engineering Society for an International Engineering Congress to be held in Sweden, June 1921.

Adjournment was taken to meet at the Hotel Statler, St. Louis, Monday, May 24, at 10 a. m., in connection with the Spring Meeting.

CALVIN W. RICE,
Secretary.

Professional Sections News

The Council has granted the petition of the Railroad Section and an election of officers is being conducted. An organizing conference for the Fuels Section was held on May 18 and for the Power Section on May 26. The petition for the Aeronautics Section has now been received by the Council.

Arrangements have been made with the Meetings Committee for five of the new sections to conduct sessions at the next Annual Meeting.

A meeting of the General Committee on Professional Sections was held on May 5 and another is scheduled to be held during June.

Section Meetings

ATLANTA:

May 25. Manufacture of Cotton Goods, by J. T. Wikle of Atlanta, Ga.

BALTIMORE:

May 7. Joint meeting with the Electrical Institute. Some Recent Developments in Heating and Ventilation, by Professor John R. Allen of Pittsburgh, Pa.

BOSTON:

May 5. Methods of Aeroplane Production and Possibilities in Future Commercial Aviation, by Charles H. Tavener.

CHICAGO:

May 21. Luncheon and Excursion to works of Western Electric Co.

May 22. Section entertained the members of the A. S. M. E. en route to the Spring Meeting at the Engineers' Club.

CLEVELAND:

April 27. Joint meeting with Cleveland Engineering Society. Grinding Developments, Achievements and Future Possibilities by Mr. C. H. Norton of the Norton Company, Worcester, Mass.

COLORADO:

May. Joint meeting with the sections of other National Societies.

CONNECTICUT:

NEW HAVEN BRANCH:

May 14. Visit to works of Geometric Tool Co., Westville. Cafeteria luncheon at company's dining room. Development of the Automatic Tapping Head, by one of the engineers of the Geometric Tool Co.

MID-CONTINENT:

May 28. Joint meeting of A. S. M. E. and Oklahoma Section of American Society of Chemical Engineers.

MILWAUKEE:

April 20. Extra meeting of the Society was held under the auspices of the Milwaukee Section of the A. I. E. E. Mr. Calvert Townley, President A. I. E. E., addressed the Society.

April 21. Meeting of Engineering Society of Milwaukee held under the auspices of Milwaukee Section of the A. S. M. E. Engineering Opportunities, by Major Fred J. Miller, President of the A. S. M. E.

ONTARIO:

May. Visited works of Canadian Westinghouse Company; International Harvester Co. and the new generating station of the Dominion Power and Transmission Co.

PHILADELPHIA:

May 25. Annual Dinner. Several prominent men addressed the meeting, and past-chairmen gave short talks.

PROVIDENCE:

May 11. Providence Section formed. A Committee was appointed to plan an active session for 1920-21. Meeting of the Providence Engineering Society followed. Apprenticeship Systems, by Mr. Goss of the Brown and Sharpe Mfg. Co.

SAN FRANCISCO:

April 8. Turbine Reduction Gear for Ship Propulsion, by Mr. W. J. Davis.

May 20. Commercial Development of the Aeroplane, by Dr. Durand of Leland Stanford University.

WASHINGTON, D. C.:

May 17. An Exhibit on Gas and Electric Welding, followed by a dinner, when a short talk was given on "Should Junior Members Vote?" A professional session was held in the evening on Gas and Electric Welding.

PERSONALS

In these columns are inserted items concerning members of the Society and their professional activities. Members are always interested in the doings of their fellow-members, and the Society welcomes notes from members and concerning members for insertion in this section: All communications of personal notes should be addressed to the Secretary.

CHANGES OF POSITION

EDWARD H. MAROT, formerly with the Hyatt Roller Bearing Co. of Newark, N. J., is now sales engineer for the Steel Treating Equipment Company of Detroit, Mich.

MEYER K. EPSTEIN, who was formerly sales agent for the Gilbert & Barker Manufacturing Company of Springfield, Mass., has become sales agent in the Philadelphia district for Tate-Jones & Co., Inc., furnace engineers, of Pittsburgh, Pa.

I. BELLER, until recently connected with the Balbach Smelting and Refining Company of Newark, N. J., in the capacity of designing engineer, has become affiliated with the Chile Exploration Company (Braden Copper Company) of New York City.

WILLIAM V. LOWE, formerly sales engineer with Hess Bright Co. and recently in the engineering and advertising department of Manning, Maxwell & Moore, Inc., has resigned his position to become associated with the Easton Machine Company, South Easton, Mass., as sales engineer.

FRED E. SERMULIN has resigned as test engineer of the Bethlehem Steel Company and has accepted a position with R. H. Warren, consulting engineer, of Easton, Pa.

STERLING H. BUNNELL has resigned his position as chief engineer with R. Martens & Co., Inc., of New York City, and has become associated with the Engineering and Appraisal Company, Inc., with offices in New York City.

HARRY A. HEY is now manager of sales for the Illinois Tool Works of New York. He was formerly associated with the Singer Manufacturing Company of Elizabethport, N. J.

A. Y. DODGE, formerly assistant plant and tool engineer with the Wallis Tractor Company, of Racine, Wis., has accepted the position of chief engineer with the Racine Engineering Company. This company, which has recently been organized, will sell tractors and trucks of its own design and manufacture.

HARRY I. BEARDSLEY has resigned his position as supervising mechanical designer with the Crocker-Wheeler Company, Ampere, N. J., and is now associated with the Western Electric Company, New York City, in the capacity of specification engineer.

WALTER J. BITTERLICH, who has been plant engineer for the Hood Rubber Company of Watertown, Mass., for fourteen years, has resigned his position to become engineering superintendent of the new plant of the Seamless Rubber Company of New Haven, Conn.

EDWARD C. POHLMAN has resigned his position as associate editor of the *American Garage & Auto Dealer* to become president and general manager of the Pohlman-Corcoran Company of Chicago.

FRANK KING, who until recently was chief mechanical engineer of the Columbia Graphophone Company of Bridgeport, Conn., is now affiliated in the capacity of works manager with the Holcomb and Hope Manufacturing Company of Indianapolis.

ALEXANDER A. KOSWICK, formerly assistant comptroller and industrial engineer with the U. S. Steel Construction Company, is now assistant general auditor of the Hearst's Corporations. He has also been elected secretary and a director of the Silico-Portland Cement Company.

AXEL AKERS has become plant engineer for The Alemite Die-Castings and Manufacturing Company of Chicago. He was formerly forge plant engineer for The Symington Chicago Corporation.

ANNOUNCEMENTS

R. B. RENNER has been transferred from the New York branch of the Jeffrey Manufacturing Company to the home office of the company at Columbus, Ohio, as assistant engineer, engineering construction.

LORENZO E. WAITE is general superintendent of the Toledo Milling Machine Company, recently organized in Toledo, Ohio, for the manufacture of a line of vertical milling machines.

WALTER E. DAGGETT, formerly engineer of the Osborn Manufacturing Company, Inc., of Cleveland, has recently opened sales and engineering offices in northern Ohio.

JAMES REED has recently resigned as Commander, Construction Corps, U. S. N., and has become a member of the executive staff of the Los Angeles Shipbuilding & Dry Dock Company, San Pedro, Cal.

CLOYD M. CHAPMAN announces his resignation from the organization of Westinghouse Church Kerr & Co., Inc., and the opening of an office in New York City for the practice of consulting engineering.

A. H. LANE has resigned his position in the Ordnance Engineering Department, at Watervliet Arsenal, N. Y., and is now superintendent of construction with The Cohoes Iron Foundry and Machine Company of Cohoes, N. Y., builders of electric passenger and freight elevators.

HORACE L. HOWELL is manager of the Research and Information Bureau of the National Railway Appliance Company of New York, a department which has been inaugurated in connection with the London Underground Railway of England.

APPOINTMENTS

RICHARD H. RICE, acting manager of the Lynn, Mass., works of the General Electric Company for the past year and a half, has been appointed manager of the Lynn plant.

SNOWDEN B. REDFIELD, formerly engineer of tests of the Ingersoll-Rand Company, Phillipsburg, N. J., has been appointed engineer in charge of the Engineering Department of the Easton, Pa., plant of this company.

H. F. J. PORTER, consulting industrial engineer of New York, has recently been appointed Secretary of the National Efficiency Society, with headquarters in New York.

WILLIAM A. COWELL has been appointed engineer in charge of the Rubber Machinery Department of The Wellman-Seaver-Morgan Company at their Akron plant. He was formerly assistant engineer.

WILLIAM C. GIBSON, formerly manager of the small tank department of the William Graver Tank Works, East Chicago, is now manager of tank and plate sales for the same company, which is now known as the Graver Corporation.

NECROLOGY

DEAN BERNARD COBB

Dean B. Cobb, head of the drafting department and in charge of the evening electrical course of the Boardman Trade School, New Haven, Conn., died on April 1, 1920. Mr. Cobb was born on June 11, 1891, in West Haven, Conn. He was educated in the West Haven grammar and high schools and later took courses in mechanical drawing and electrical engineering in night and correspondence schools. From 1909 to 1919 Mr. Cobb was connected with the following firms, all in New Haven: New York, New Haven & Hartford Railroad as electrical draftsman; the Acme Wire Co. as chief electrician; the Southern New England Telephone Co. as chief draftsman; Westcott & Mapes Co. as assistant mechanical engineer and the Greist Manufacturing Co. as plant engineer. In 1919 Mr. Cobb became associated with the Boardman Trade School, with which he was connected at the time of his death.

Mr. Cobb was a member of the American Institute of Electrical Engineers. He belonged also to several fraternal organizations. He became a junior member of our Society in 1919.

ALBERT P. CHAPMAN

Albert P. Chapman, superintendent of power and repairs, of the Ludlow Manufacturing Associates, Ludlow, Mass., died on March 18, 1920, of pneumonia. Mr. Chapman was born in Springfield, Mass., on February 5, 1883. He was educated in the Springfield schools and Worcester Polytechnic Institute, receiving from the latter his B.S.

and E.E. degrees. From 1907 to 1914 Mr. Chapman was connected for periods of from six months to three years with the following firms: the General Electric Co., Schenectady, N. Y.; H. H. Richards & Co., Hartford, Conn.; the Public Service Railway Co., Newark, N. J.; the Boston Elevated Railway Co., and the Boott Cotton Mills, Ludlow, Mass. In 1914 Mr. Chapman became associated with the Ludlow Manufacturing Associates, Ludlow, Mass., as electrical engineer; in 1917 he was promoted to the position of superintendent of power and repairs.

Mr. Chapman became an associate-member of the Society in 1917. He was also a member of the American Institute of Electrical Engineers and the Engineering Society of Western Massachusetts.

FREDERICK LINCOLN EMORY

Frederick Lincoln Emory, professor of mechanics and applied mathematics in West Virginia University, died on December 31, 1919. Professor Emory was born in Lunenburg, Mass., on April 9, 1867. He received his common-school education in Lunenburg and attended Worcester Polytechnic Institute, receiving his bachelor's degree in mechanical engineering in 1887. From 1887 to 1889 he was the director of the mechanical and manual-training department of the Washington, D. C., high school. The next two years he spent in establishing and superintending the Trade Schools in the Massachusetts Reformatory at Concord Junction, Mass.

In the fall of 1891 he was selected to establish and take charge of the new department of mechanical engineering in West Virginia University. This he did most successfully, leaving to establish and direct the Industrial Training and Technical High School for the City of Indianapolis, Ind. In the fall of 1895 he entered Cornell University to take post-graduate work and received his master's degree in mechanical engineering in 1896. He then returned to West Virginia University to become professor of mechanics and applied mathematics.

Professor Emory was a frequent contributor of papers to scientific societies and was co-author with Dr. Frederick Truscott in the translation and publication of the Philosophical Essay on Probabilities by Laplace, often referred to as the treatise on "Least Squares." He became a member of our Society in 1894. He was also a member of the Society for the Promotion of Engineering Education.

NATHANIEL OLIVER GOLDSMITH

Nathaniel Oliver Goldsmith, assistant to the president and in charge of operations of the Weir Frog Co., Cincinnati, Ohio, died on February 16, 1920. Mr. Goldsmith was born in Cincinnati on February 27, 1860. He was educated in the schools of that city and Lehigh University, receiving his M. E. degree from the latter in 1883. Upon graduation he entered the drafting room of the Weir Frog Co., with which concern he was connected for thirty-seven years, and through successive promotions attained the position which he held at the time of his death.

Mr. Goldsmith belonged to several clubs in Cincinnati. He became a member of the Society in 1900.

CHARLES W. JOHNSON

Charles W. Johnson, assistant director of engineering of the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., died suddenly of pneumonia on April 21, 1920. Mr. Johnson was born in June, 1874, in New Vienna, Ohio, where he received his early education. Later he entered Ohio State University, from which he was graduated in 1896 with the degree of M. E. Upon graduation he entered the employ of the Steel Motor Co., Johnstown, Pa., where he was located for about two years, when he became connected with the Bullock Electric & Manufacturing Co., Cincinnati, Ohio; seven years later he was made superintendent of the works of the Allis-Chalmers-Bullock Co., Ltd., Montreal, Canada.

He entered the employ of the Westinghouse Electric & Manufacturing Co. in 1907, and was soon appointed to the office of chief inspector. Mr. Johnson's promotion was rapid. In 1912 he became general superintendent of the East Pittsburgh Works, and in the early part of 1919 was made assistant manager of works. On January 1, 1920, Mr. Johnson was appointed assistant director of engineering.

Mr. Johnson was also very active in welfare work and social problems. He was a member of the American Institute of Mining and Metallurgical Engineers, the Engineering Society of Western Pennsylvania and several social clubs. He became a member of our Society in 1908.

WILLIAM FRANCHÈRE MONAGHAN

William F. Monaghan, of the engineering department of the New York Edison Co., died on April 10, 1920, of pneumonia. Mr. Monaghan was born on September 12, 1855, in Brooklyn, N. Y. He received his early education at St. John's College, Fordham, N. Y., and finished his college studies and technical training as a mechanical engineer abroad. Upon his return to the United States in 1882 he was engaged for about five years in construction work on stationary engines. He then became connected with the Mt. Morris Electric Light Co. as chief draftsman. About 1893 he entered the employ of the United

Electric Light & Power Co. as mechanical draftsman. He was subsequently employed by the New York Edison Co. in 1900 and was connected with the engineering department of this company until the time of his death.

Mr. Monaghan joined the Society in 1886 and was a life member.

MELVIN B. NEWCOMB

Melvin B. Newcomb, chief engineer of the rubber-machinery department of the Akron works of the Wellman-Seaver-Morgan Co., died on March 13. Mr. Newcomb was born in October 1888 in Newport, N. J. He received his mechanical engineering training at Drexel Institute Evening School and the University of Wisconsin. Mr. Newcomb had been engaged in engineering work with the I. P. Morris Co., Philadelphia; the Allis-Chalmers Manufacturing Co., Milwaukee; the Wisconsin Engine Co., Corliss, and the Firestone, Tire & Rubber Co., Akron. In January 1918 he joined the hydraulic-turbine engineering department of the Wellman-Seaver-Morgan Co., and a few months later was appointed chief engineer of the rubber-machinery department.

Mr. Newcomb was a member of the Cleveland Engineering Society

and the Akron Engineering Society. He became a junior member of our Society in 1917.

LEVI S. RICHARDSON

Levi S. Richardson was born in Cincinnati, Ohio, on September 30, 1872. Upon the completion of his high-school course he entered the University of Michigan, where he spent two years. From that time until 1919 Mr. Richardson was connected with the following firms for periods of from one to four years, gaining a wide and varied experience: the Sprague Electric Co., Watsessing, N. J.; R. Hoe & Co., manufacturers of printing presses, etc.; Ford, Bacon & Davis, Engineers; Colgate & Co., the New York Edison Co., all in New York City; the Transit Development Co., Brooklyn; the Lenher Engineering Co., New York; S. Firestone, Rochester, W. S. Barstow & Co., New York, and Westcott & Mapes, New Haven, Conn. In May 1919 Mr. Richardson returned to the employ of Barstow & Co., to work on the erection of a leaching plant in Ironville, Ohio, and a little later on a plant in Hastland, West Virginia. After an illness of six months, following his return from Hastland, he died on April 18, 1920.

Mr. Richardson became a member of the Society in 1909.

EMPLOYMENT BULLETIN

THE SECRETARY considers it a special obligation and pleasant duty to make the office of the Society the medium for assisting members to secure positions by putting them in touch with special opportunities for which their training and experience qualify them, and for helping any one desiring engineering services. The applications listed below combine the services of the Society and of the Engineering Societies Employment Bureau, Engineering Societies Building.

For Positions Available, see special Bulletin mailed to the entire membership

MEN AVAILABLE

Only members of the Society are listed in the published notices of this section. Copy for notices should be on hand by the 10th of the month preceding date of issue and should be limited to 45 words. The form of notice should be such that the initial words indicate the classification. Notices are not repeated in consecutive issues.

MECHANICAL ENGINEER GRADUATE, two years' machine shop, three years' drafting, and two years' testing and teaching experience. Desires to connect with some internal-combustion engine manufacturing concern. Preferably as research engineer, age 26, salary \$2,400 a year. SM-5279.

MECHANICAL ENGINEER AND EXECUTIVE, age 34, fifteen years' experience covering broad field in mechanical lines. Capable organizer or representative, willing to go abroad or to the Orient. Speaks three foreign languages. SM-5280.

ENGINEERING EXECUTIVE, age 24, M. I. T. graduate with one year's experience as hurry-up man in large shipyard and six months' experience in general steam engineering at sea. Would like to locate near Boston. SM-5281.

ENGINEER-PHYSICIST or research engineer; M. E. and M. S. degrees; nine years' experience in responsible charge of engineering investigations along various lines; at present employed as assistant physicist in industrial plant. Desires to get in touch with concern that feels need of having an energetic, broadly-trained engineer who can ascertain facts and apply them to get results. Age 30, married. SM-5282.

EFFICIENCY ENGINEER or production engineer; technical graduate, age 30, married, six years manufacturing experience in rate setting, time study, routing, scheduling, estimating, layout and supervising manufacturing processes. Thoroughly familiar with manufacture of molded insulation. Can supervise and handle men. At present employed as assistant. Would take position as head of department. Location preferred Middle West. SM-5283.

GRADUATE MECHANICAL ENGINEER, 28 years old, married, five years' experience, desires position with industrial concern. Energetic, conscientious, ambitious worker. Will give more consideration to the opportunity for experience and advancement than to initial salary. SM-5284.

ENGINEERING EXECUTIVE with 14 years' extensive experience on automatic labor-saving devices, hydraulic and water-works equipment, gas-engine design and experimental work. Has held position as chief draftsman, assistant chief engineer, consulting and constructing engineer. Desires responsible executive position with possibilities of advancement, preferably along commercial lines. Technical graduate in mechanical and electrical engineering. Age 33; married; location New York City and vicinity. SM-5285.

MECHANICAL ENGINEER, age 24, desires position preferably in Canada, or eastern States. Exceptional experience in both naval marine engineering and stationary engineering. Hold certificates for both branches, besides degree. Has been Second Engineer Officer on ships up to 20,000 I.H.P. Junior A.S.M.E. and Engineering Institute of Canada, Graduate of Institution of Mechanical Engineers, England, and Fellow of Royal Colonial Institute, London. SM-5286.

ENGINEERING EXECUTIVE or General Manager; 20 years' experience covering fully many branches of high-grade mechanical engineering work, four years' mining, and four years' from design to chief executive. Association wanted with firm in far west or southwest in research or development. Minimum salary \$10,000 per year. SM-5287.

SALES-PROMOTION EXECUTIVE with ten years' experience advertising and selling mechanical and electrical equipment. Technical education M.I.T., business education Alexander Hamilton Institute. Familiar with principles underlying sound business policies, capable reorganizing existing sales department or establishing sales organization for new company. Location New York City or Boston. SM-5288.

SUPERINTENDENT OR MANAGER; technically-trained engineer in addition to being practical mechanic; 20 years' varied experience in essential and special branches; exceptional ability for getting best results from men and equipment, in established concern or working out new enterprises. Desires connection with reliable concern in need of high-grade service. Principals only. SM-5289.

MECHANICAL SUPERINTENDENT or plant engineer; technical graduate, age 40, experienced design and production work; 12 years' practical experience as maintenance engineer covering design, operation and maintenance of power plants, foundry, machine shop and wood-working machinery. Minimum salary \$4,000. SM-5290.

MANUFACTURING EXECUTIVE; graduate mechanical engineer with broad experience in factory management, handling of men and organizing production. Location New York City or immediate vicinity. SM-5291.

GRADUATE MECHANICAL ENGINEER, 36 years old, married. Four years' shop and 11 years' designing experience on structural and mechanical work. Last 7 years on steel-plant layouts. Competent to take charge of work. Permanent position with chance for advancement desired. Present salary \$4,000. SM-5292.

MANAGER INDUSTRIAL RELATIONS, or employment manager having charge of welfare activities. Five years' experience in accident prevention, employment, and welfare activities, very successful in organization work and in obtaining results. Technical graduate. Age twenty-seven. Prefer vicinity of Cleveland but will consider other location. Excellent references. SM-5293.

MATERIALS-TESTING ENGINEER, connected with research work of large college laboratory for twelve years, available for position during summer vacation of 1920. SM-5294.

CONSTRUCTION ENGINEER, 15 years' experience in steel plant, furnace and allied equipment, cement, mining and crushing plant construction and machinery design, would consider position as designer and checker, plant maintenance engineer, or purchasing engineer. All round experience, reliable, economical and persevering. Least salary \$3,600. SM-5295.

SUPERINTENDENT OR WORKS MANAGER; graduate mechanical engineer, 15 years' experience with large corporation in charge of responsible work covering design, rate setting, costs, production and general manufacturing experience. Ten years with present employers. Desires change to smaller concern where investment can be made. Location Chicago, Ill. SM-5296.

MAINTENANCE OR SALES ENGINEER, technical graduate 1911. Power plant, gas-producer plant, and plant equipment; layout, purchase, installation and maintenance experience; machine and heat-treatment furnace design; reports on projects costs and savings. Now employed in executive position. Married. Location Philadelphia, Wilmington or vicinity. Salary \$3,300 per annum. SM-5297.

SUPERINTENDENT OR FOREMAN. Plumber and Pipe fitter. Associate Member; 15 years' experience supervising installations of sanitary systems in industrial plants and large

buildings. Desires connection with industrial plant or construction company. SM-5298.

WORKS MANAGER OR SUPERINTENDENT. Competent executive; broad experience in manufacture of gasoline engines, machine tools and small interchangeable parts; 21 years' practical experience from machinist to plant manager employing 450 hands; technical training; age 41; capable organizer and knows how to obtain cooperation and support of his co-workers; thoroughly familiar with modern production methods and tools; properly qualified to assume entire responsibility of production. SM-5299.

WORKS ENGINEER, graduate mechanical engineer, large maintenance department, desires to change his position for similar one with aggressive organization. Present duties include supervision of power. SM-5300.

MECHANICAL OR SALES ENGINEER, 19 years' experience on flour-mill equipment, gas engines, gas producers, heavy oil engines, motor application, machine-shop equipment, plant layout. Willing to go to Spain, South America, South Russia or China to develop export trade for one or number of firms. At present have charge of large marine shop. Salary, \$10,000 contract desired. SM-5301.

RESEARCH ENGINEER on internal-combustion engines. Five years' experience in manufacturing, designing and research. Technical training in mechanical and electrical engineering. Now in charge of laboratory employing 50 men. Familiar with stationary, high-compression oil, kerosene and gasoline truck and tractor engines, age 30, married. Only permanent connection considered. SM-5302.

RESEARCH ENGINEER, graduate E. E.; experienced in research and development of electrical appliances, thoroughly familiar with patents and patent law, about to be registered as patent attorney. Can handle small laboratory or assist in management of large concern; available in 30 days. SM-5303.

INDUSTRIAL ENGINEER wants executive position. Technical graduate, 28, with five years' experience in shops and as production engineer of large shipyard. At present superintendent of metal-working plant. Salary \$5,000. SM-5304.

EXECUTIVE—14 years' experience in machine and tool work, 5 years as superintendent in large jobbing-tool shops, doing machine and tool design, making all kinds of jigs, fixtures, punch and die work. Drill jigs, small tools and special machinery. Technical graduate, thoroughly familiar with modern methods of manufacturing and know how to handle men. Desires position in or between Newark, New Jersey, and New York City. SM-5305.

MECHANICAL ENGINEER, technical graduate, 30 years of age, married, experienced in power-house, foundry and factory-building design, and equipment. At present assistant to engineer in charge with duties estimating, purchasing, supervision of drafting, and handling of correspondence with field. Least salary considered \$300 per month. SM-5306.

MECHANICAL AND COMBUSTION ENGINEER; Cornell graduate, 30 years old, married; 7 years' experience with power problems in large plants; and is an expert in combustion, also in the running of tests. Would consider sales position where engineering knowledge would prove of value. SM-5307.

GAS ENGINEER; young technical man with 8 years' experience in illuminating-gas business wishes position in executive capacity. Experienced in latest methods of gas manufacture and high and low-pressure distribution and in various types of power-plant machinery. Qualified to serve as works or distribution superintendent or in combination position. Married and employed at present. SM-5308.

GRADUATE MECHANICAL ENGINEER; age 26; five years' experience in foundry-equipment estimating, sales engineering, manufacturing methods, ordnance work, metallurgical engineering, research work, engineering materials, heat treatment and metallography. Prefer position as assistant to sales, research,

MECHANICAL ENGINEERING

or metallurgical engineer. Permanent position desired in territory between Cleveland and Boston. SM-5309.

TECHNICAL GRADUATE in mechanical engineering, age 27, desires position where push and conscientious work is required. Have had some experience in drafting and business in semi-executive capacity. The future a greater object than the present salary. SM-5310.

ALLOY ENGINEER, brass and non-ferrous; experienced in production of alloys in billet, slab, and shell form, using pit, oil, and electric furnaces. Technical graduate, at present in responsible work in large casting shop. Experienced in management and executive work. Excellent record. Minimum salary \$5,000. SM-5311.

COMBUSTION AND MECHANICAL ENGINEER, technical graduate, 5 years' structural design and testing experience with chain-grate and underfeed stokers. Thoroughly familiar with boiler-room maintenance and operation. Capable of supervising efficiency work in large plant. Also considerable executive experience. Desires responsible position. SM-5312.

SUPERINTENDENT, chief engineer or industrial engineer. Technical graduate mechanical engineer. Twenty years' experience covering heavy-mill design and construction; plant layout, mechanical handling of material, manufacturing and general plant engineering. Specification, design and purchasing of machinery and equipment. SM-5313.

DESIGNING ENGINEER; eight years' experience on heavy machinery, including machine tools, rolling mills, hydraulic machinery, conveying machinery, cranes, etc.; six years' experience on building construction and plant layouts; four years as machinist; qualified to take charge of designing force and to develop new lines; technical graduate; preferred location, Central or Western New York or Eastern Ohio. SM-5314.

COPPER-SMELTER MASTER MECHANIC (English), Spanish speaking, desires position. All round experience. Age 41. SM-5315.

INDUSTRIAL ENGINEER; technical graduate; aged 30; six years' experience designing heavy machinery, labor-saving and safety devices, power plants, piping, heating and ventilating and estimating; two and a half years of efficiency work; thoroughly familiar with planning scheduling, routing, time study and cost accounting, neat and accurate draftsman, with present firm two and a half years, desires change. Location immaterial. SM-5316.

PROFESSOR OF ECONOMIC ENGINEERING, eastern man, ten years' practical experience in construction, organization and management desires commercial connection. Fair knowledge of French, German and Spanish. Now on Pacific Coast. SM-5317.

PRODUCTION ENGINEER. Graduate mechanical engineer, six years' experience. Executive experience as construction engineer with large corporation and now plant engineer in concern having three plants. Experience includes machine layout and installation, machine operations and processes, building design and construction, power generation and distribution. Location preferred within 100 miles from New York City. SM-5318.

MECHANICAL ENGINEER, aged 31; married; main experience in large modern power-station practice covering design, construction and maintenance, broad experience in refrigeration, testing, inspection and plant layout; desires position handling plant construction, equipment installation, maintenance and power-plant economy. SM-5319.

MILL ENGINEER DRAFTSMAN, member, age 38, nine years' special experience in design and installation of mill layouts, power driver, construction and plant maintenance in addition to general experience, technical training. Good executive, competent to take charge of work of large textile mill or manufacturing plant. Employed and married. SM-5320.

INDUSTRIAL PHYSICIST. Has organized and equipped laboratory for commercial research.

During war, directed experimental work on engine performance at high altitudes, with particular reference to oil and lubrication problems. Doctor's degree, Harvard; special field, spectroscopy. Age, 34. Available immediately. Prefers position requiring organizing and research ability. Eastern U. S. SM-5321.

MECHANICAL ENGINEER AND EXECUTIVE; age 34, married, M. E. Stevens; 12 years' engineering experience; at present instructing in marine engineering and naval construction. Experience includes civil engineering, from instrument man up to chief of party and head of office; assistant engineer of manufacturing plant in New York City; as engineer on costs on munitions plants; also expert on gages, checks, fixtures, etc., drives, etc. Salary minimum \$4,000. SM-5322.

MECHANICAL ENGINEER; Cornell 1917; graduate; aged 24; married. Shop and drafting-room experience; three years as layout and maintenance engineer, engineer in charge of marine-power plant, estimating and project engineer on conveying machinery. Eastern or central location preferred. Salary desired, \$2,400. SM-5323.

FACTORY MANAGER, CHIEF OR MECHANICAL ENGINEER, SUPERINTENDENT. Graduate engineer, employed in important position, in organization of about 10,000, desires change. Seventeen years' practical experience in executive and engineering positions, including manager, on high-grade, interchangeable production in volume. Resourceful, successful; American, 38. Salary, \$6,000. SM-5324.

RESEARCH ENGINEER; graduate mechanical engineer, shop trained; three years' mill and shop inspection of equipment and fabricated steel construction; two years' power-plant operation and maintenance; two years' erecting engineer, supervising installation and trouble work in refrigeration; six years' research work with engineering materials and engineering problems; designed apparatus for same, tests of refrigerating machines and other mechanical equipment. Prefer position with refrigerating concern as research engineer but would consider sales or plant-engineering work. Available after July 1. SM-5325.

ASSISTANT, SUPERINTENDENT OR PLANT MANAGER, three years' in shop, production service departments installing production and control methods. At present assistant superintendent in plant making interchangeable machine parts and punch-press work. Some machine designing, twenty-nine years old. Desires to connect with small growing concern. Salary \$2,600. SM-5326.

POWER-PUMP DESIGNER, technically trained; graduate of Cornell. Twenty years' experience in design and manufacture of all classes of reciprocating pumping machinery. Specialist in power pumps. Thoroughly familiar with modern production methods in this class of machinery. At present employed, wishes to make change. No preference as to location. SM-5327.

METALLURGICAL PLANT ENGINEER. Graduate mechanical engineer, experience in layouts, design, estimating, contracting, purchasing and erection of steel and concrete, metallurgical plant buildings; conveying, grinding, filtration, calcining machinery; steam and electric-power plants. Now in charge of engineering department of large chemical plant. Desires similar position, sales engineering work, as assistant to manager. Location East of Mississippi. SM-5328.

MECHANICAL ENGINEER. Aged 30, experienced in machine-shop work, machine design, and plant construction and maintenance, desires position as assistant to mechanical or plant engineer where energy and ability will be appreciated. Location preferably Toronto, Canada. SM-5329.

MECHANICAL ENGINEER. Graduate M. I. T. with three years' shop and engineering experience as draftsman and assistant to superintendent, desires position with progressive concern along production or sales engineering lines. SM-5330.

PURCHASING AGENT. Mechanical engineer now in export line is available for new position. SM-5331.

CANDIDATES FOR MEMBERSHIP

TO BE VOTED ON AFTER JUNE 18, 1920

BELOW is a list of candidates who have filed applications since the date of the last issue of **MECHANICAL ENGINEERING**. These are arranged geographically. Applications for change of grading are also posted. The total number of applications received and listed below is 195.

The Membership Committee, and in turn the Council, urge the

NEW APPLICATIONS

Alabama

BERTENSHAW, LOUIS G., Designer, Hardie Tynes Manufacturing Co., Birmingham
GILDER, EDWARD L., Sales Engineer, American Cast Iron Pipe Co., Birmingham
LINEBERRY, CHARLES O., Superintendent, Alabama Power Co., Gorgas
MEADE, RAY, Plant Engineer, Sloss Shefford S. & I. Co., Ensley
PERSON, WILLIAM M., Assistant Construction Engineer, Semet Solvay Co., North Birmingham
RICHARDSON, ROGER F., Construction Engineer, Semet Solvay Co., Birmingham
WHITAKER, OROON D., Chief Engineer, The Ingalls Iron Works Co., Birmingham

Arizona

JOHNSON, JOSEPH B., Chief Engineer, United Verde Copper Co., Clarkdale
SMITH, TURNER C., Draftsman, A. G. McGregor, Warren

California

BEIDLEMAN, WALTER W., Chief Engineer, Shell Company of California, Tracy
GISLER, JOSEPH F., Superintendent, Federal Telegraph Co., Palo Alto
HOOD, ARCHIE, Machine Shop Superintendent, C. F. Braun & Co., San Francisco
LANE, CARLTON V., Assistant Engineer, Bethlehem Shipbuilding Corp., Lt., San Francisco
METCALF, LESTER G., Refinery Engineer, Union Oil Co., Oleum
SIMMS, FRED B. L., Superintendent, Shell Company of California, Tracy
STONE, CHARLES E., Second Engineer, S. S. Matsonia, Matson Navigation Co., San Francisco
YOUNT, WILLIS H., Tractor Designer, The Holt Manufacturing Co., Stockton

Connecticut

COLEY, HOWARD B., Assistant Mechanical Superintendent, Waterbury Clock Co., Waterbury
DAVIS, GUY E., Commander, U. S. Navy, Groton
HAINES, CHARLES M., Experimental Engineer, Fiala Arms & Equipment Co., Inc., New Haven
LINDHOLM, JOHN I., Chief Designer, Hubbard & Harris, Inc., Bridgeport
MCQUOWN, LEONARD A., Process Engineer, Cutlery Section, Winchester Repeating Arms Co., New Haven

Delaware

MCREE, JAMES I., Draftsman, Hercules Powder Co., Wilmington
SUTTON, RUSSELL I., Draftsman & Layout Man, E. I. duPont de Nemours & Co., Wilmington
THIES, WILLIAM H., Assistant Power Designer, DuPont Engineering Co., Wilmington

District of Columbia

TOEWS, GUSTAV P., Assistant Engineer of Tests & Draftsman, U. S. Navy Yard, Washington

Georgia

BARKER, BENJAMIN S., JR., Plant Analyst, Goodyear Tire & Rubber Co., Atlanta
MILNER, COBB, Assistant Engineer, State Highway Department of Georgia, Atlanta

Illinois

BLOUCH, LEVI H., Chemical Engineer, Sherman-Williams Co., Chicago
DECOSTER, CHARLES J., Consulting Engineer, Moline Plow Co., Moline
HALTERMAN, HENRY J., Efficiency Engineer, A. E. Staley Manufacturing Co., Decatur
HEARTY, FRANK J., District Manager, Edward Valve & Manufacturing Co., Chicago

members to scrutinize this list with care and advise the Secretary promptly of any objections to the candidates posted. All correspondence in this regard is strictly confidential. Unless objection is made to any of the candidates by June 18, 1920, and provided satisfactory replies have been received from the required number of references, they will be balloted upon by the Council.

BROTHERTON, WALKER P., Sales Engineer, Worthington Pump & Machinery Corp., St. Louis

CRAUN, J. M., Mechanical Goods Salesman, Goodyear Tire & Rubber Co., St. Louis

HAHN, EMANUEL, Engineer, W. A. Zelnicker Supply Co., St. Louis

KUMMING, EMIL, Foreman, Century Electric Co., St. Louis

LARKIN, DAVID, Chief Engineer, Monsanto Chemical Works, St. Louis

McFARLAND, CHARLES T., Resident Engineer, Roberts Filter Co., Kansas City

NORVELL, LORENZO, Manager, Fairbanks Morse & Co., St. Louis

O'NEIL, CHARLES B., Sales Engineer, Fairbanks Morse Co., St. Louis

Nebraska

CROCKETT, BENWICK E., Supervising Engineer, Union Power & Light Co., Omaha
ORR, FRED L., Tractor Testing Engineer, University of Nebraska, Lincoln

Nevada

POMEROY, RALPH E., Smelter Superintendent, Nevada Consolidated Copper Co., McGill

New Jersey

HORN, JAMES M., Instructor of Electrical Engineering, Stevens Institute of Technology, Hoboken

JACKSON, JAMES J., Chief Task Setter, The Celluloid Co., Newark

PATEMAN, HAROLD B., Designer, Grasselli Chemical Co., Grasselli

STINSON, TENBROECK W., Assistant Engineer, Public Service Electric Co., Newark

STRUTTON, EDWIN B., Apprentice Engineer, Babcock & Wilcox Co., Bayonne

WEINGARTNER, NELSON B., Director of Training, N. Y. Shipbuilding Corp., Camden

New York

AINSWORTH, WILLIAM P. E., Combustion Engineer, N. Y. Steam Co., New York

ANGUS, ROBERT A., Heating & Ventilating Engineer, Westinghouse Church Kerr & Co., Inc., New York

BARTON, CHARLES P., JR., Mechanical Engineer, Thompson Starrett Co., New York

BENTEL, ALBERT, Bronx, New York

BOGART, ADELBERT N., Chief Engineer, Mills Building, New York

BROWNE, BARD, Special Representative, Locomotive Superheater Co., New York

BRUNER, ROY W., Lieutenant (Junior Grade) U. S. Navy, U. S. S. Arizona, New York

BULLARD, HERBERT A., Chief Engineer, Multi-Vane Construction Co., Inc., New York

COE, RAYMOND S., Advertising Manager, C. E. Johansson, Inc., Poughkeepsie

COX, HARRY A., Steam Engineer, Brooklyn Edison Co., Brooklyn

DUNN, JAMES E., Syracuse

EARNSHAW, EDWARD H., JR., Worthington Pump & Machinery Corp., New York

ERSLEW, ALBERT J., Sales Engineer, Doeher Die Casting Co., Brooklyn

GORDON, MYRON B., Junior Engineer, C. E. Knoepfle & Co., Inc., New York

HILLEARY, WARREN, Superintendent Royal Indemnity Co., New York

HIRSCH, ROBERT R., Sales Engineer, SKF Industries, Inc., New York; Re-election

JANNSEN, ERNEST, Engineer & Designer, Western Electric Co., New York

LAWRENCE, HOWARD B., Chief Engineer, Gerstendorfer Bros., New York

MAYHEW, BENJAMIN A., National Sugar Refining Co., Long Island City

MUNSCHAUER, G. R., President & Manager, Niagara Machine & Tool Works, Buffalo

PHELPS, MERRICK W., Plant Analyst, The Goodyear Tire & Rubber Co., Syracuse

ROWLETT, RICHARD S., Sales Engineer, Hyatt Roller Bearing Co., New York

Minnesota

MUIR, JAMES F., Mechanical Engineer, Toltz, King & Day, St. Paul

Mississippi

ROGERS, THEO. B., Assistant Night Superintendent, Buckeye Cotton Oil Co., Jackson

Missouri

ALLEN, MAYNARD C., Master Mechanic, St. Joseph Lead Co., Rivermines

BLISS, WILLIAM C., Assistant Mechanical Engineer, Scullin Steel Co., St. Louis

MECHANICAL ENGINEERING

SMITH, HUGH, Assistant Superintendent of Production, Watervliet Arsenal, Watervliet STANWICK, CHARLES A., Electrical Engineer, Western Electric Co., New York TOPPING, WILLIAM H., Sales Engineer, A. D. Granger Co., New York VAN POPERIN, BERNARD, Sales Engineer, Alberger Pump & Condenser Co., New York WALKER, CHARLES A., JR., Division Superintendent, Watervliet Arsenal, Watervliet YOUNG, ARTHUR, Engineer on Consulting Board, Amer. Sugar Refining Co., New York

Ohio

ALLEN, HUGH L., Toledo Scale Co., Toledo BAKER, WILLIAM, Baker Brothers, Toledo BOSTON, ORLАН W., Standardization of Indirect Labor, The Cleveland Tractor Co., Cleveland BRANCHE, ARCH E., Draftsman, Ohio Body & Blower Co., Cleveland BROWN, ALBERT H., Mechanical Engineer, Hooven Owen Rentschler Co., Hamilton DUNLAP, PAUL R., Draftsman, The Baker Foundry & Machine Co., Toledo GILLETT, JOHN, Mechanical Engineer, Mills, Rhines, Beilmann & Nordhoff, Toledo HARTMAN, OSCAR H., Sales Engineer, The Jos. L. Sheldon Engineering Co., Toledo KINCAID, EARLE B., Purchasing Agent & Employment Manager, The Miller DuBrul & Peters Manufacturing Co., Cincinnati MOORE, JAMES G., Night General Foreman, The American Tool Works Co., Cincinnati REIMER, CLARENCE C., Supervisor of Vocational Education, The Niles Tool Works Co., Hamilton VON ROTZ, ROBERT, Engineer, Cincinnati Ball Crank Co., Cincinnati

Oklahoma

BEREND, OSCAR J., Oil Producer, Tulsa

Pennsylvania

BARRITT, JOHN W., Supervisor of Apprentices, Westinghouse Elec. & Mfg. Co., Lester BEYER, WILLIAM W., Chief Designer (Mech.), The Philadelphia Electric Co., Philadelphia BLIZARD, JOHN, Fuel Engineer, Bureau of Mines, Pittsburgh BROCK, ARTHUR, JR., Proprietor & General Manager, Arthur Brock, Jr., Tool & Manufacturing Works, Philadelphia BUELL, WILLIAM C., JR., Chief Engineer, Tate-Jones & Co., Inc., Pittsburgh CONNELL, WILLIAM H., JR., Sales Engineer, Hiller & Jones Co., Pittsburgh COOLEY, DWIGHT, Design Engineer, The Barrett Co., Frankford, Philadelphia DUDLEY, DAVID R., Engineer, Hersh & Brother, Allentown FOGEL, WILLIAM P., Sales Engineer, Day & Zimmerman, Inc., Philadelphia FROELICH, CLARENCE H., Ordnance Engineer, Bethlehem Steel Co., Bethlehem GLASBY, JOHN B., Assistant Engineer of Tests, Atlantic Refining Co., Philadelphia GOTWALS, CHARLES S., Efficiency Engineer, Hess Bright Manufacturing Co., Philadelphia HEPBURN, WILLIAM G., Machine Tool Salesman, Niles-Bement Pond Co., Pittsburgh HINGER, A. WILLIAM, Foreign Sales Manager, Baldwin Locomotive Works, Philadelphia HUME, ARTHUR P., Engineer of Tests American Bridge Co., Ambridge IVES, GEORGE C., Turbine Inspector, Westinghouse Electric & Manufacturing Co., Lester JONES, ISAAC H., Works Engineer, Fels & Co., Philadelphia

KERNS, RUSSELL C., Draftsman, Westinghouse Electric & Manufacturing Co., Lester LAWSON, CHARLES T., Sales Engineer, New Westinghouse Elec. & Mfg. Co., E. Pittsburgh MESTA, MERLE A., Assistant Production Manager, Mesta Machine Co., Pittsburgh MILLAR, ROBERT E., Chief Engineer, Fels & Co., Philadelphia MORETON, ALFRED G., Engineer, General Electric Co., Erie PINNEY, JABEZ P., Charge Man, Bethlehem Shipbuilding Corp., Bethlehem REYNOLDS, CHARLES R., Westinghouse Engineer, Westinghouse Electric & Manufacturing Co., Philadelphia ROHRBACH, GEORGE C., Engineer, Bonney Vise & Tool Works, Inc., Allentown SAMANS, WALTER, Assistant Chief Engineer, Atlantic Refining Co., Philadelphia SIGWORTH, ROBERT Y., Power Plant Engineer, Penn State College, State College SMITH, WALTEE, Plant Engineer, Franklin Sugar Refining Co., Philadelphia

SNOWDEN, HOWARD J., Sales Engineer, Baldwin Locomotive Works, Philadelphia STAHL, DAVID V., William Cramp & Sons Ship & Engine Building Co., Philadelphia TARLETON, LESLIE S., Instructor in Mechanical Engineering, Univ. of Pa., Philadelphia TEMPLIN, CHARLES S., Engineer, Hersh & Brother, Allentown THOMPSON, LOUIS N., Draftsman, Westinghouse Electric & Manufacturing Co., Lester YANSS, GEORGE W., Spicer Manufacturing Corp., Pottstown YAO, KWANG YU, Technical Apprentice, Westinghouse Electric & Mfg. Co., Lester

Rhode Island

PINKHAM, ALEXANDER B., District Manager, Feles Engineering Co., Providence

Texas

WEAVER, HAL C., Associate Professor of Mech. Eng., University of Texas, Austin

Washington

WHEELER, HAROLD S., Vice President, Far West Lumber Co., Tacoma WILSON, WILLIAM W., Acting Leading Mechanical Engineer & Draftsman in charge of Plant Section Drafting Room, U. S. Navy Yard, Puget Sound

Wisconsin

BLISS, WILLIAM D., Professor of Mechanical Engineering, Marquette Univ., Milwaukee JORGENSEN, RUFUS I., Chief Draftsman, Valley Iron Works Co., Appleton KAROW, EDWIN A., Toolroom Foreman, Kemptsmith Manufacturing Co., Milwaukee MACK, PERRY E., Chief Engineer, Briggs & Stratton Co., Milwaukee PRAEFKE, L. A., Tool Engineer, Briggs & Stratton Co., Milwaukee RADERMACHER, LAURENCE J., Draftsman, Valley Iron Works Co., Appleton SHANNON, JEAN R., Assistant Chief Draftsman, Kemptsmith Mfg. Co., Milwaukee STARK, JAMES K., Designer, Kemptsmith Manufacturing Co., West Allis THOMAS, MARK S., Designer, Valley Iron Works Co., Appleton WILSON, JOHN W., Inspector of Boilers, Hartford Steam Boiler I & I Co., Racine

Canada

PATERSON, WILLIAM B., Office Manager, Canadian Service Co., Ltd., Toronto, Ontario

Canal Zone

BUSSE, GROVER C., Marine Designing Draftsman, The Panama Canal, Balboa DOUGLAS, HAROLD D., Mechanical Engineer, New York & Honduras Rosario Mining Co., San Huancito, Honduras

Cuba

GATJE, FREDERICK C., Efficiency Engineer, The Cuban-American Sugar Co., Central Delicias, Oriente HALSTEAD, GEORGE B., Car Engineer, American Steel Co., of Cuba, Havana MARTIN, ROBERT L., Assistant Electrical Engineer, Elia Sugar Co., Elia Camagney

India

HAYWOOD, CHARLES M., Engineer Salesman, British-American Machinery Co., Ltd., Calcutta

Mexico

SADA, LUIS G., Superintendent of Ceraceria, Cuauhtemoc, S. A. Monterey

South America

BINDON, HUGH D., Chief Constructional Engineer, Swifts, Montevideo

CHANGE OF GRADING

PROMOTION FROM ASSOCIATE

Missouri

FERGUSON, JAMES W., Manager, Mechanical Goods Sales, Goodyear Tire & Rubber Co., St. Louis

PROMOTION FROM ASSOCIATE-MEMBER

Massachusetts

LEFREN, KARL A. A., Mechanical Engineer, Robert Gair Co., Haverhill

New Jersey

HEIMPEL, EARL F., Chief Engineer, Edison Portland Cement Co., Stewartsville

New York

BAUSCH, CARL L., Superintendent, Bausch & Lamb Optical Co., Rochester

Oklahoma

JABLLOW, CHARLES, Professor of Mechanical Engineering, Oklahoma Agricultural & Mechanical College, Stillwater

Vermont

HAMILTON, DOUGLAS T., Advertising Manager, Fellows Gear Shaper Co., Springfield

PROMOTION FROM JUNIOR

District of Columbia

SHORT, FRANK, Captain, Aircraft Armament Division, Ordnance Department, Washington

Louisiana

MOSES, WALTER B., Vice President, The Engineering Sales Co., Inc., New Orleans

New York

MILLER, GARRETT E., Designing Engineer, West India Sugar Finance Corp., New York

Ohio

FREED, LORING, Empire Ohio Chemical Co., Toledo

Pennsylvania

KASSANDER, A. R., Assistant Superintendent, Carbondale Machine Co., Carbondale

TUCKERMAN, GEORGE E., Mechanical Engineer, Ballinger & Perrot, Philadelphia

Wisconsin

MELLOWES, ALFRED W., Manager, Refrigerator Division, Briggs & Stratton Co., Milwaukee

Cuba

CLARKE, PHILIP L., Electrical Engineer, Cuba Co., Central Jatibonica, Jatibonica

SUMMARY

New Applications	181
Applications for Change of Grading:	
Promotion from Associate.....	1
Promotion from Associate-Member.....	5
Promotion from Junior.....	8

Total.....

195

SUMMARY SHOWING AVERAGE AGE AND POSITIONS OF APPLICANTS ON BALLOT CLOSING MAY 22, 1920.

Average age of applicants:

Members	40
Associates	38
Associate-Members	33
Juniors	25
Captain	1
Chief Engineers	7
Asst. Chief Engineers	2
Colonel	1
Construction Engineer	1
Consulting Engineer	1
Designers	3
Draftsmen	11
Chief Draftsmen	6
Mechanical Draftsmen	4
Engineers	9
Efficiency Engineers	2
Executives (Pres., V. Pres., Secy., Treas., Mgrs.)	31
Works Manager	1
Industrial Engineers	2
Inspector	1
Instructors	8
Lieutenant	1
Machine Designers	5
Assistant Master Mechanics	3
Marine Engineer	1
Mechanical Engineers	11
Asst. Mechanical Engineers	4
Plant Engineers	4
Production Engineers	1
Production Managers	2
Research Engineer	1
Assistant Professors	2
Sales Engineers	7
Sales Managers	1
Sanitary Engineer	1
Superintendents	10
General Superintendents	3
Supervising Engineer	1
Assistant Superintendents	3
Testing Engineer	2
Miscellaneous	53